EMI AmericaSeries

Comfort Where It Counts.

WLC/WLH
HIGH WALL EVAPORATOR

P/N 240005842, Rev. A [05/08]

SPECIFICATIONS AND PERFORMANCE



STRAIGHT COOL/HEAT PUMP*

Nominal Circuit Capacities: WLH 9,000, 12,000, 18,000, 24,000 Btuh and WLC (only) 30,000 & 36,000 Btuh

** Heat Pump only available for 9,000-24,000 Btuh units.*

PRODUCT DESCRIPTION

The AmericaSeries WLC/WLH offers a contemporary design, ductless type evaporator combining attractive appearance in any decor and high efficiency conditioning for small to medium size commercial or residential spaces. The WLC/WLH is equipped with unit mounted infrared compatible controls which also supports 24V remote wall thermostat operation. Optional hand held remote is available.

Heat Pump models provide up to a nominal 24,000 Btuh of cooling and heating. Electric heat options are available for up to 5KW of supplemental heat.

This American-made evaporator offers ease of installation, operation, and service. It can be matched with EMI's S1C/S1H 09-24 and S1C 30-36 Btuh Single-Zone Condensing Units, the S2C side discharge Multi-Zone Condensing Unit, or the T2C, T3C, and T4C top discharge Multi-Zone Condensing Units.

STANDARD FEATURES

▲▼ ***Unit Mounted Control:***

- ***Large LCD Backlit Display***
- ***Single unit mounted control package***, configurable to either unit mount or remote wall thermostat operation, reducing model number or SKU's required.
- ***Universal control*** can be used in cooling only, cooling with electric heat, heat pump, or heat pump with second stage electric heat applications.
- ***Operational range*** set point temperature adjustable between 55°F and 90°F in one-degree increments.
- ***Infra red compatible control*** allows use of optional IR hand held controller

> **NOTE:** *Unit mounted controls are fully functional without the handheld remote.*

- ***Operation modes*** include Heat, Cool, Dry, Fan and Auto Change-over.
- ***Fan Operation –*** Auto/On. High or Low speed fan
- ***Fan Purge –*** Fan remains on for 60 seconds after Heat/Cool call is dropped for improved efficiency (Auto mode only)
- ***Room air sampling:*** Selectable time intervals ensures the fan will cycle on periodically, in Auto Fan Mode.

> ***Benefit:*** Helps to eliminate room temperature stratification.

- ***Selectable Fahrenheit (°F) or Centigrade (°C)*** temperature scale.
- ***Dry mode –*** Operates cooling and electric heat simultaneously to remove humidity. Optional electric heat must be selected.
- ***Anti-Short Cycle Compressor Protection***.
- ***Minimum on time for heating and cooling***.

> ***Benefit:*** Helps eliminate room temperature drop and system short cycling.

- ***Freeze Protection –*** Prevents evaporator freeze up.
- ***Test operation –*** Allows ease of testing after installation (all timers are eliminated).
- ***Non-volatile back-up memory***

> ***Benefit:*** Control settings are maintained for an indefinite period during a power outage. When power is restored the equipment will resume operation after a three-minute compressor time delay.

- ***7-day programmable*** with copy feature.
- ***Filter change indicator:*** A timer feature that indicates the filter should be changed according to the selected time.
- ***Motorized supply louver*** with optional sweep or six stationary settings.
- ***Modular design –*** reduces parts required for control

WLC/WLH FEATURES AND OPTIONAL EQUIPMENT

NOTE: *Due to ongoing development programs, design and specifications may change without notice.*

STANDARD FEATURES Continued

package. Deco panel, relay board, ribbon cables and microprocessor all combined into one package.

- ***Integral condensate pump safety-switch connection*** where-by the microprocessor monitors the condensate pump safety switch and displays an error code when a fault occurs. *(Applys only with optional* condensate *pump)*
- ***CEC*** (California Energy Commission) compliant
- Condensate drain pan over flow protection

▲▼ ***Cabinet Features:***

- Durable ABS plastic cabinet with a galvanized steel sub-chassis.
- Easily accessible, washable, reusable, nylon mesh filter.
- Horizontal discharge louver, constructed of high temperature ABS plastic, that can be set to oscillate, or can be parked in various pre-set positions.
- Manually adjustable vertical discharge fins.
- Easy access to pipe chase area from cabinet bottom.

> ***Benefit:*** Allows piping connections and condensate pump installation with the unit mounted on the wall.

- Easily removable end-cap for access to control area for installation and service.
- Condensate drain pan constructed of galvanized steel (G90U), with anti-corrosion coating.
- Modular snap-in, 7-day programmable control with large backlit LCD display, a “Change filter” display feature and selectable Fahrenheit (Fº), or Centigrade (Cº) temperature scale.
- Operational range between 55ºF to 90ºF, adjustable in one-degree increments.

OPTIONAL EQUIPMENT

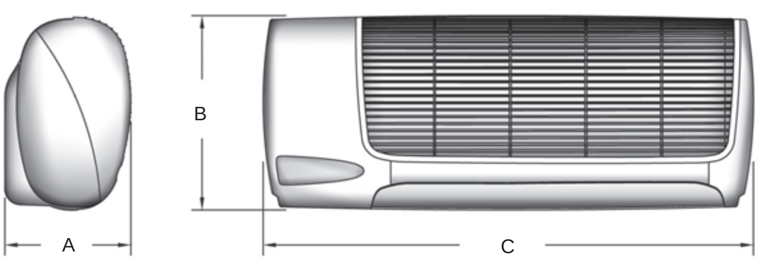
- Condensate pump (field installed)
- 24V remote wall thermostat
- Electric heat with automatic reset high temperature cutout and redundant high temperature fuse link (when heat option is selected)
- Hand held infrared controller.

INSTALLER SUPPLIED ITEMS

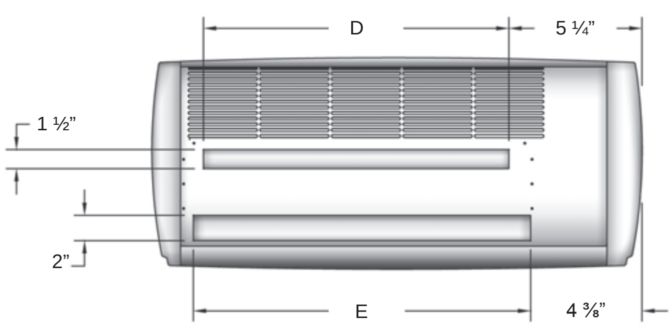
- Low voltage wiring
- Power wiring
- Mounting screws and fasteners
- Condensate piping
- Refrigerant piping (if not supplied)
- Refrigerant (for interconnect charge)

WLC/WLH DIMENSIONS AND SPECIFICATIONS

NOTE: *Due to ongoing development programs, design and specifications may change without notice.*



WLC/WLH SHIPPING WEIGHT	
Model	**Lbs.**
WLH09/12	70
WLH18/24	108
WLC30/36	TBD



WLC/WLH PHYSICAL DIMENSIONS					
Model	“A” Depth	“B” Height	“C” Length	“D” Mounting Bracket Clearance	“E” Tubing Access Clearance
WLH09	9 ⅞”	15 ¼”	38 ½”	24”	26 ½”
WLH12	9 ⅞”	15 ¼”	38 ½”	24”	26 ½”
WLH24	9 ⅞”	15 ¼”	48 ½”	34”	36 ½”
WLC30	9 ⅞”	15 ¼”	58 ½”	44”	46 ½”
WLC36	9 ⅞”	15 ¼”	58 ½”	44”	46 ½”

WLC/WLH SPECIFICATIONS

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WLC/WLH ELECTRICAL SPECIFICATIONS									
MODEL #	VOLTS/HZ/PH	FAN RLA	HP	HEATER K.W.	AMPS	TOTAL AMPS	MIN VOLT	M.C.A.	HACR BRKR
SMALL CABINET 09/12									
09/12	115/60/1	0.64	0.02	–	–	0.64	104	0.8	15
	115/60/1	0.64	0.02	0.75	6.50	7.14	104	8.9	15
	208/230/60/1	0.34	0.02	–	–	0.34	197	0.4	15
	208/230/60/1	0.34	0.02	3.00	13.04	13.38	197	16.7	20
MEDIUM CABINET 18/24									
24	115/60/1	1.20	0.083	–	–	1.20	104	1.5	15
	115/60/1	1.20	0.083	0.75	6.52	7.72	104	9.7	15
	115/60/1	1.20	0.083	1.25	10.90	12.10	104	15.1	20
	208/230/60/1	0.56	0.070	–	–	0.56	197	0.7	15
	208/230/60/1	0.56	0.070	3.00	13.04	13.60	197	17.0	20
	208/230/60/1	0.56	0.070	5.00	21.74	22.30	197	27.9	30
LARGE CABINET 30/36									
30/36	208/230/60/1	0.80	1/10	–	–	0.80	197	1.0	15
	208/230/60/1	0.80	1/10	5.00	21.74	22.54	197	28.2	30

DISCHARGE AIR SPEED AND FLOW @ 230V					
Model	High CFM	Low CFM	Coil	FPM	Throw/Ft.
9/12	400	350	Dry	900	15
18/24	750	675	Dry	1,225	25
30/36	1,170	900	Dry	1,250	27

WLC/WLH OBSERVED SOUND VALUES (230V High Speed Fan)	
Model	dBA
09/12	45
18/24	56
30/36	60

WLC/WLH INTERCONNECTING-LINE SIZE			
System Capacity Btuh	Liquid O.D.	Suction O.D.	Condensate I.D.
09	1/4”	1/2”	1/2”
12	1/4”	1/2”	1/2”
18	3/8”	5/8” *	1/2”
24	3/8”	3/4”	1/2”
30	3/8”	3/4” **	1/2”
36	3/8”	3/4” **	1/2”

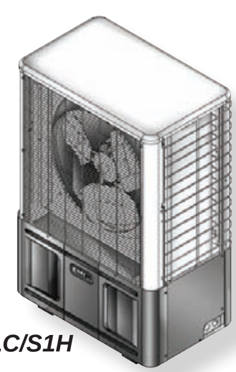
* *WLC/WLH Suction Connection size is 3/4” O.D. and must bush down at the WLC/WLH Unit.*

** *WLC/WLH Suction Connection size is 5/8” O.D. a factory supplied kit is provided to transition to 3/4” O.D. interconnect.*

WLC/WLH SYSTEM OPTIONS



WLC/WLH



S1C/S1H

COOLING SYSTEMS WITH WALL UNITS						
Condenser	Wall Unit	Btuh	SEER	SHR	EER	Ref.
S1C9	WLH09	9,000	13.0	.79	11.8	R22
S1C2	WLH12	12,000	13.0	.74	12.9	R22
* S1C8	WLH24	18,000	14.0	.78	13.0	R22
S1C4	WLH24	24,000	13.0	.70	12.5	R22
S1C3	WLC36	30,000	13.0	.72	12.6	R22
S1C6	WLC36	33,600	13.0	.69	12.1	R22

* ***Important*** *- This system has been designed and manufactured to meet ENERGY STAR criteria for energy efficiency. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow the manufacturer’s refrigerant charging and air flow instructions.* ***Failure to confirm proper charge and airflow may reduce energy efficiency and shorten equipment life.***

ENERGY STAR

HEAT PUMPS SYSTEM OPTIONS WITH WALL UNITS									
Condenser	Wall Unit	Cooling Btuh	Heating Btuh	SEER	HSPF	SHR	EER	COP	Ref.
S1H9	WLH09	9,000	8,600	13.0	8.0	.75	11.6	3.6	R22
S1H2	WLH12	11,400	10,600	13.0	8.0	.73	11.5	3.4	R22
S1H8	WLH24	18,000	16,400	13.0	7.7	.73	12.1	3.8	R22
S1H4	WLH24	23,000	20,600	13.0	8.3	.71	11.9	3.5	R22

WLC/WLH SYSTEM OPTIONS

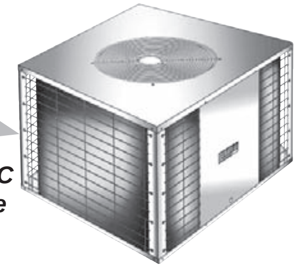
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S2C
Side Discharge



WLC



T2C, T3C & T4C
Top Discharge

COOLING SYSTEMS WITH S2C SIDE DISCHARGE						
Wall Unit (s)	**Condenser**	**Btuh**	**SEER**	**SHR**	**EER**	**Ref.**
WLH09	S2C99	18,000	13	.80	11.9	R22
WLH12	S2C22	23,000	13	.72	12.4	R22
WLH09+WLH12	S2C92	21,000	13	.72	12.0	R22

SYSTEM OPTIONS WITH T2C TOP DISCHARGE						
Wall Unit(s)	**Condenser**	**Btuh**	**SEER**	**SHR**	**EER**	**Ref.**
WLH24	T2C88	36,000	13	.79	12.1	R22
WLH24	T2C44	45,000	13	.73	11.8	R22
WLH09+WLH24	T2C98	27,000	13	.80	11.8	R22
WLH24	T2C84	41,000	13	.76	11.8	R22
WLH12+WLH24	T2C24	34,000	13	.72	11.8	R22

SYSTEM OPTIONS WITH T3C TOP DISCHARGE						
Wall Unit(s)	**Condenser**	**Btuh**	**SEER**	**SHR**	**EER**	**Ref.**
WLH09+WLH24	T3C994	41,000	13	.77	11.9	R22
WLH09	T3C999	27,000	13	.80	11.7	R22
WLH12	T3C222	34,000	13	.71	11.7	R22
WLH09A+WLH24	T3C928	39,000	13	.77	11.9	R22
WLH09+WLH12+WLH24	T3C924	43,000	13	.75	11.8	R22
WLH12+WLH24	T3C228	41,000	13	.74	11.8	R22
WLH09+WLH12	T3C922	32,000	13	.74	11.8	R22
WLH09+WLH12	T3C992	30,000	13	.77	11.9	R22
WLH09+WLH24	T3C998	36,000	13	.80	11.8	R22
WLH12+WLH24	T3C224	46,000	13	.72	11.7	R22

SYSTEM OPTIONS WITH T4C TOP DISCHARGE						
Wall Unit(s)	**Condenser**	**Btuh**	**SEER**	**SHR**	**EER**	**Ref.**
WLH09	T4C9999	36,000	13	.80	11.8	R22
WLH12	T4C2222	45,000	13	.73	11.7	R22
WLH09+WLH12	T4C9222	42,000	13	.71	11.8	R22
WLH09+WLH12	T4C9992	38,000	13	.71	11.8	R22
WLH09+WLH12	T4C9922	41,000	13	.73	11.9	R22

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